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## STUDIES OF PERUVIAN BIRDS. NO. XXVI [1]

### NOTES ON THE GENERA *AGRIORNIS, MUSCISAXICOLA, MYIOTHERETES, OCHTHOECA, COLONIA, KNIPOLEGUS, PHAEOTRICCUS, FLUVICOLA*, AND *RAMPHOTRIGON*

BY JOHN T. ZIMMER

I am greatly indebted to Mr. W. E. C. Todd of the Carnegie Museum, Pittsburgh, for permission to examine certain material in the collection under his charge. I am also grateful to Mr. J. D. Macdonald of the British Museum for the critical identification of a Peruvian specimen in that institution.

Names of colors are capitalized when direct comparison has been made with Ridgway's 'Color Standards and Color Nomenclature.'

**Agriornis microptera andecola** (D'Orbigny)

*Pepoaza andecola* D'ORBIGNY, 1840, 'Voy. Amér. Mérid.,' Oiseaux, p. 351—"sur les parties les plus élevées du plateau des Andes" = Bolivia; Paris Mus.

*Agriornis andecola paznae* MÉNÉGAUX, 1909 (Jan.), Bull. Mus. Hist. Nat. Paris, XIV, p. 340—road from Pazña to Urmiri, near Lake Poopo, Oruro, Bolivia; Paris Mus.

Puno, 1 "♂," 1 ♀; Tirapata, 1 ♂.

The species has not been recorded heretofore from Perú, but probably is a regular winter visitor to the highlands in the neighborhood of Lake Titicaca.

These birds agree well with several others from northern Bolivia in respect to the browner and less pronounced streaking on the throat which, in turn, is less purely white than in the average of a dozen birds from Argentina. Also, the general color of the body is more buffy and less grayish than in the Argentine specimens. I cannot, however, find any difference in the comparative slenderness of the bill in birds from the two regions, even when only selected specimens are compared.

Two adult males from Cuchacancha, Bolivia, are not very different from the adult Argentine males although the general color is slightly more buffy in hue and the streaks on the throat are somewhat less clearly blackish, having a faint trace of brown.

[1] Previous papers in this series comprise American Museum Novitates, Nos. 500, 509, 523, 524, 538, 545, 558, 584, 646, 647, 668, 703, 728, 753, 756, 757, 785, 819, 860, 861, 862, 889, 893, 894, and 917.

Three adult females from Guaqui, Cuchacancha and Vinto, Bolivia, are not clearly distinguishable from four adult females from Tucumán, Argentina. Two young males (first annual plumage ?) from Cuchacancha, Bolivia, and Puno, Perú, are decidedly less strongly marked on the throat and more buffy on the belly than two birds in comparable plumage from Tucumán, but a young male from Salta, Argentina, is a good match for the Puno specimen and one from San Antonio de los Cobres, Province of Los Andes, is ochraceous below and very lightly marked on the throat. A young female from Tirapata, Perú, is similarly matched by one from the Province of Salta.

The most satisfactory arrangement of the material in hand places the birds from the provinces of Salta and Los Andes with the Bolivian and Peruvian series of *andecola* while the Tucumán examples presumably represent the southern form, *microptera*, which is said to be only a winter visitor in that region. The status of *andecola* in extreme northern Argentina and, for that matter, in southeastern Perú has yet to be determined, but it is probable that it breeds throughout its entire range. The young male from San Antonio de los Cobres is in its post-juvenal molt.

SPECIMENS EXAMINED

*A. m. microptera.*—ARGENTINA: Tucumán, 2 ♂, 2 ♀; Manchala, 1 ♀; Sarmiento, 1 ♀; Tafi del Valle, 1 ♂; Angaco Sud, 1 ♂; Santiago del Estero, 1 ♂.

*A. m. andecola.*—ARGENTINA: Cachi, Prov. Salta, 1 ♂, 1 ♀; San Antonio de los Cobres, 1 ♂. BOLIVIA: Cuchacancha, 3 ♂, 1 ♀; Vinto, 1 ♀; Guaqui, 1 ♀. PERÚ: Puno, 1 ♂, 1 ♀; Tirapata, 1 ♀.

**Agriornis andicola albicauda** (Philippi and Landbeck)

*Dasycephala albicauda* PHILIPPI AND LANDBECK, 1863, Arch. Naturg., XXIX (1), p. 132—one of the valleys of the cordilleras of Perú = Prov. Tacna, Chile (type said to be labeled "Arica"); Chilean Nat. Mus., Santiago.

Comparison of ten Peruvian specimens with six Ecuadorian birds shows an appreciable difference in the two series. Ecuadorian birds are larger [adult males: wing, 145 (badly worn)–151 mm.; tail, 120 (badly worn, 114); tarsus, 42–43.25; females and young males: wing, 135–140.5; tail, 112–115; tarsus, 39.25–43]. Peruvian specimens are smaller [adult males: wing, 136–146; tail, 108–117.5; tarsus, 39–40; females and young males: wing, 130–136, tail, 100–110; tarsus 36.5–40]. I have included the measurements of one Chilean and three Peruvian birds in the collection of Field Museum of Natural History, Chicago.

In addition, the Ecuadorian birds are darker in color on the whole upper surface and on the breast and sides, and the females and young males have the breast more prominently streaked. So far as I can ob-

serve, there is no difference in the marking of the tail. A single specimen from above Tafi del Valle, Argentina, differs from all of the others by the possession of very extensive dusky brown bases on all of the rectrices. Attention has already been called to this bird by Chapman (1926, Bull. Amer. Mus. Nat. Hist., LV, p. 471). More material from northern Argentina is needed to determine the status of the resident form which, if like the specimen in hand, certainly should be separated from the Ecuadorian and Peruvian birds.

In any case, the differences shown by the skins from Perú and Ecuador are sufficient to warrant the separation of two subspecies in these two respective regions. The name *andicola* is available for the Ecuadorian form and, since this name is the oldest in the species, it must become the specific name. According to the International Rules it is not invalidated by the earlier "*andecola*" which is in use in the *montana* group and hence, in spite of the unfortunate similarity, it is not entitled to be dropped in favor of "*pollens*" which otherwise would be available for the Ecuadorian form.

Records are from Cachupata and Lucre.

SPECIMENS EXAMINED

*A. a. andicola.*—ECUADOR: Bestion, 2 ♂, 1 ♀; Antisana, 1 ♂; Quito, 1 ♂; Cumbaya, 1 ♂.

*A. a. albicauda.*—PERÚ: La Raya, 1 ♀, 1 (?); Rumicruz, 3 ♂, 1 ♀; Tulpo, 2 ♂; Huamachuco, 1 ♂; Cajamarca, 1 ♀; 1 ♀[1]; La Quinua, 1 ♂[1]; mountains near Otuzco, 1 ♂[1]. CHILE: Putre, Tacna, 1 ♂[1].

*A. a.* subspecies?: ARGENTINA: above Tafi del Valle, 1 ♀.

### Muscisaxicola rufivertex pallidiceps Hellmayr

*Muscisaxicola rufivertex pallidiceps* HELLMAYR, 1927 (April 11), Field Mus. Nat. Hist. Publ., Zool. Ser., XIII (5), p. 21—twenty miles east of San Pedro, Antofogasta, Chile; ♂; Field Mus. Nat. Hist.

Five specimens from Arequipa and one from Moquegua belong without question to this pale-capped subspecies. There has been no definite record of this form from Perú although Taczanowski's record of "*rufivertex*" from Arequipa rather certainly belongs here.

One specimen from Cuchacancha, Bolivia, also belongs to *pallidiceps* although eleven other specimens from the same locality are *occipitalis*. The specimens were all taken in June and there is little doubt that the individual belonging to *pallidiceps* was a migrant from the south. The Arequipa and Moquegua birds also were taken in June and it is possible that they, too, are merely winter visitants from the south although there

[1] Specimens in Field Museum of Natural History, Chicago.

is no known conflict in ranges (as at Cuchacancha) to necessitate some such assumption or to prevent *pallidiceps* from occupying the region as a resident.

**Muscisaxicola rufivertex occipitalis** Ridgway

*Muscisaxicola occipitalis* Ridgway, 1887 (November), Proc. U. S. Nat. Mus., X, p. 430—Lake Titicaca; U. S. Nat. Mus.

*Muscisaxicola rufivertex ruficrissa* Cory, 1916, Field Mus. Nat. Hist. Publ., Orn. Ser., I, p. 342—Macate, Perú; "♂" = ♀; Field Mus. Nat. Hist.

I can find no differences in color between the birds from northern Perú and those from southern Perú and northern Bolivia. Males from northern Perú appear to be smaller than those from the southern localities with the exception of a single specimen from La Raya, possibly wrongly sexed, which has the measurements of the northern examples. Females do not show the same differences and only two of six Bolivian birds of that sex are larger than the northern birds. Actual measurements are as follows:

S. Perú and Bolivia: males, wing, 111–122 mm.; tail, 73–81; females, wing, 105.5–112.75; tail, 67–72. N. Perú: males, wing, 109–113; tail, 70–74.5; females, wing, 105–108; tail, 68–72.5.

Central Peruvian birds that I have seen are all females and inconclusive except that one from La Quinua has the wing only 103 mm., therefore probably to be associated with the northern series.

It might be possible to recognize *ruficrissa* on the basis of the larger size of the males, but I should like to see this apparent distinction confirmed by additional specimens from the north before formally acknowledging the separation.

Records are from Lake Titicaca, Ocros, Calca, Urcos, Lauramarca, Lucre, Chicla, Tarma, Hacienda de Queta, Tinta, Junín, between Cacas and Palcamayo, and Cutervo.

Specimens Examined

*M. r. rufivertex.*—Chile: Tofo, 1 ♀; Cajón del Río Blanco, 1 (?); Romero, Coquimbo, 1 ♂[1] (type of "*sanborni*"); "Chile?", 1 (?).

*M. r. pallidiceps.*—Chile: twenty miles east of San Pedro, 1 ♂[1] (type). Argentina: Cerro Muñoz, 1 ♂; Tilcara, 1 ♀; Chorrillo, Los Andes, 1 ♂; Cachipampa, Salta, 1 ♂. Bolivia: Cuchacancha, Cochabamba, 1 ♀. Perú: Arequipa, 4 ♂, 1 (?); Moquegua, 1 ♂.

*M. r. occipitalis.*—Perú: Tirapata, 1 ♂; La Raya, 1 ♂, 1 ♀; Puno, 1 ♂; Ttica-Ttica, 2 ♂, 1 (?); Oroya, 2 ♀; La Quinua, 1 ♀[1]; Macate, 1 ♀[1] (type of "*ruficrissa*"); Cajamarca, 2 ♂, 1 ♀[1]; Huamachuco, 1 ♂; Cajabamba, 1 ♂; San-

[1] Specimens in Field Museum of Natural History, Chicago.

tiago, 1 ♀; Tulpo, 1 (?). BOLIVIA: Cuchacancha, 7 ♂, 5 ♀; Vinto, 1 ♂. "Near Valparaiso" (errore), 1 (?).

**Ochthoeca oenanthoides polionota** Sclater and Salvin

*Ochthoeca polionota* SCLATER AND SALVIN, 1870, P. Z. S. London (for 1869), p. 599—Pitumarca, Perú; British Mus.; paratype in Amer. Mus. Nat. Hist.

Specimens from northern and central Perú and from the southeastern part of the country on the northern(or eastern) side of the Andes may all be referred to *polionota*. A male from Oconeque and a female from Limbani are not quite typical. Both are a very little paler than the average and the Limbani specimen has faint traces of a pale wing-bar, while both are smaller than the average, though not outside the minimum of the series from other localities and not so small as the skins of *oenanthoides* examined.

A male from La Raya, just over the divide in the northern drainage, is as dark as any other *polionota*, but there is a well-marked wing-bar on the greater coverts, although it is dull and relatively dark cinnamomeous instead of pale and buffy as in *oenanthoides*. These variations all point to the close approach of *oenanthoides*.

A single specimen from northern Perú (Huamachuco) is very slightly paler above than central Peruvian examples, but the difference is too slight to be of great significance.

A male from Pitumarca, once mounted and now quite faded, is noted on the original label as "type" but probably is no more than one of the paratypes since the type is said to be in the British Museum.

Records which belong to *polionota* are from Ollachea, Maraynioc, Ingapirca, Queta, Anta, and Lauramarca.

**Ochthoeca oenanthoides oenanthoides** (D'Orbigny and Lafresnaye)

*F(luvicola) Oenanthoides* D'ORBIGNY AND LAFRESNAYE, 1837, Mag. Zool., VII, cl. 2, Syn. Av., p. 60—La Paz, Bolivia; Paris Mus.

*Ochthoeca polionota pacifica* BERLEPSCH, 1907 (Feb.), Ornis, XIV, p. 354—La Paz, w. Bolivia; Frankfort Mus.

*Muscisaxicola morenoi* BRUCH, 1904, Rev. Mus. La Plata, XI, p. 258—Santa Catalina, Jujuy.

A female from Puno and a bird without given sex from Tirapata appear to be closer to *oenanthoides* than to *polionota*. The localities are both in the neighborhood of Lake Titicaca and in better regional association with the range of *oenanthoides* than with that of the central Peruvian form.

Both birds are somewhat darker than two north-Argentine specimens and, although I have not compared them directly with examples from

northern Chile, I have found three Chilean birds to differ from other Argentine specimens in this same manner and have little doubt that the north-Chilean and south-Peruvian birds will be found to be much alike. The Puno and Tirapata specimens are distinctly paler than any skin of *polionota* examined. The Tirapata bird has a pale wing-bar which is only suggested in the Puno example.

Thus the members of the group from southeastern Perú are not at all uniform in their characters, and while those from the northern drainage are closer to *polionota*, they show various degrees of approach to *oenanthoides* while the reverse is true of specimens from the southern drainage.

There is another record from Puno which has been placed under *polionota*, but on the basis of the evidence now at hand it should be transferred to *oenanthoides*.

SPECIMENS EXAMINED

*O. o. oenanthoides.*—BOLIVIA: Cuchacancha, 1 ♀. ARGENTINA: Tilcara, 2 ♂; Colalao del Valle, 3 ♂[1]. PERÚ: Puno, 1 ♀; Tirapata, 1 (?). CHILE: Putre, 1 ♂[1], 2 ♀[1].

*O. o. polionota.*—PERÚ: Pitumarca, 1 ♂ (paratype); Cuzco, 1 ♂; La Raya, 1 ♂, 1 ♀; Chipa, 3 ♂, 4 ♀; Junín, 1 (?); La Quinua, 2 ♀[1]; Oconeque, 1 ♂; Limbani, 1 ♀; Huamachuco, 1 ♂.

**Ochthoeca fumicolor brunneifrons** Berlepsch and Stolzmann

*Ochthoëca oenanthoïdes brunneifrons* BERLEPSCH AND STOLZMANN, 1896, P. Z. S. London, p. 355—Maraynioc, Perú; Frankfort Mus.

Peruvian birds from the central and northern parts of the country do not differ greatly among themselves. Most of the Ecuadorian skins at hand are likewise indistinguishable.

Some skins from Ecuador, particularly the northern part, and from southern Colombia are distinctly more rufescent on the under parts and much darker brown on the upper parts, but they are not perfectly constant and specimens from Santa Isabel, Colombia, are quite like central Peruvian examples. The localities from which such dark birds are at hand are Valle de las Pappas (March) and coast range west of Popayan (July), Colombia, and "Pichincha" (January), "Papallacta" (February), Taraguacocha (August), and upper Sumaco (January), Ecuador. One Peruvian bird from La Lejia exhibits traces of this same depth of hue but since it is in molt and retains some of the faded feathers of its older dress, exact comparison is difficult.

Beyond Santa Isabel, at Santa Elena, and at Paramillo in the north-

[1] Specimens in Field Museum of Natural History, Chicago.

ern part of the western Colombian Andes, the birds appear to be even more rufescent on the under parts and are likewise quite rufescent above without the dark brown coloration of the Valle de las Pappas specimens. This character was noted by Chapman (1917, Bull. Amer. Mus. Nat. Hist., XXXIII, p. 428) who ascribed it to a seasonal cause since the rufous birds were taken in November and January, the dark and somewhat rufous skins in March and July, and the typically lighter plumaged examples in September. However, I have Peruvian specimens taken in March, April, June, July, August, October, November, and December and Ecuadorian specimens dated in January, February, May, and September, and I am unable to find a seasonal distinction which would account for the intensity of coloration exhibited by the Paramillo and Santa Elena birds. The darker tones of the north-Ecuadorian and south-Colombian specimens are not quite accounted for on this basis, either, but it is doubtful if they are due to more than individual variation with a possibility of some bearing on the lines of divergence of the rufous north-Colombian populations. The latter, in addition, are smaller than true *brunneifrons* and appear to deserve a name as follows below.

Peruvian records of *brunneifrons* are from Paucal and Montaña Hucan, above Cutervo.

**Ochthoeca fumicolor ferruginea,** new subspecies

TYPE from Santa Elena, Antioquia, Colombia; altitude 9000 feet. No. 133,640, American Museum of Natural History. Adult male collected November 15, 1914, by Miller and Boyle; original No. 10,046.

DIAGNOSIS.—Similar to *O. f. brunneifrons* of central and northern Perú, Ecuador, and southern Colombia, but smaller and more rufescent.

RANGE.—Temperate Zone of the northern ends of the Western and Central Andes of Colombia.

DESCRIPTION OF TYPE.—Forehead buffy whitish, continued over the eyes in a broad superciliary stripe which changes to cinnamon over the auriculars; top of head near Sepia, somewhat grayer anteriorly; back Auburn × light Chestnut; upper tail-coverts somewhat browner. Lores dull grayish; auriculars dull brownish; chin whitish, forming a distinct patch; malar region and sides of neck Cinnamon-Brown × Dresden Brown; lower breast and belly deep Cinnamon-Rufous × Ferruginous; breast, throat, and sides a little duller; flanks Ferruginous × Burnt Sienna; lower mid-belly restrictedly whitish; under tail-coverts pale ochraceous buff. Wings sooty; outer margins of inner secondaries and tertials narrowly pale rufescent, broadest on inner tertials; greater upper wing-coverts broadly tipped with bright Mikado Brown; median series with tips deeper rufous; lesser series colored like the mantle; under wing-coverts and axillars much like the upper belly; inner margins of remiges narrowly whitish. Tail sooty, with outer margin of outer web of outermost rectrices indistinctly pale. Bill (in dried skin) blackish; feet blackish. Wing, 80 mm.; tail, 69.25; exposed culmen, 11; culmen from base, 15.5; tarsus, 20.5.

REMARKS.—Female like the male in color but smaller; wing, 76.5–78 mm.; tail, 65–68.5. The males, in series, measure: wing, 78–84 mm.; tail, 69.25–74.

The depth of color on the under parts in this form shows a decided trend in the direction of *superciliosa* of the Mérida region of Venezuela. The Mérida birds differ from all the forms heretofore assigned to the *fumicolor* group by the uniform cinnamomeous superciliaries, the obscurity of the upper parts, the completely white outer web of the outer remiges, and the single wing-bar, but these characters are no more than extremes of characteristics found in *fumicolor* and its conspecies. The outer web of the outer tail-feathers is narrowly margined with paler, in these forms, although it is never clear white. The superciliaries vary from plain whitish to a decided cinnamomeous hue on the posterior portion. The upper parts are variable in hue. The wing-bar on the median wing-coverts is sometimes very dark and inconspicuous and far from the prominent band which it is in other cases. So far as range is concerned, *superciliosa* merely extends the range of the *fumicolor* group without encroaching on it at any place.

These considerations and the undoubted affinity which *superciliosa* has to the *fumicolor* group impel me to include the Mérida form with *fumicolor* as the most northern, as well as the most richly colored member of that species.

### Ochthoeca fumicolor berlepschi Hellmayr

*Ochthoeca fumicolor berlepschi* HELLMAYR, 1914, Novit. Zool., XXI, p. 167—Malaga, w. Bolivia; ♂; Berlepsch Coll., Frankfort Mus.

Specimens from southeastern Perú and from the Urubamba Valley belong to the Bolivian form as has been determined by previous workers.

Aside from the localities from which material has been examined as noted herewith, there is a record from Cachupata.

#### SPECIMENS EXAMINED

*O. f. fumicolor.*—COLOMBIA: "Bogotá," 9 (?); Choachi, 2 (?); El Piñón, 2 ♂, 1 ♀; Chipaque, 3 ♂, 1 ♀, 1 (?); La Mar, Cundinamarca, 2 ♂; Palo Hueco, 1 ♀[1]. VENEZUELA: Páramo de Tamá, 3 ♀[1].

*O. f. ferruginea.*—COLOMBIA: Santa Elena, 2 ♂ (incl. type), 1 ♀, 1 (?); Paramillo, 3 ♂, 5 ♀.

*O. f. brunneifrons.*—COLOMBIA: Santa Isabel, 6 ♂, 5 ♀; coast range west of Popayan, 1 ♂; Valle de las Pappas, 3 ♂, 1 ♀, 1 (?). ECUADOR: Oyacachi, 4 ♂; Mojanda, 1 ♂, 2 ♀; Cayambe Mountains, 1 ♀; upper Sumaco, 1 ♂; Papallacta,

[1] Specimens in Field Museum of Natural History, Chicago.

2 ♂, 1 ♀; Pichincha, 1 ♂, 3 ♀; Lloa, 1 ♂; Bestion, 1 ♂, 2 ♀; Mt. Chimborazo, 2 ♂; Urbina, 2 (?); Cerro Huamani, 1 ♂; Quito, 2 (?); Taraguacocha, 2 ♂; El Paso, 1 ♂; Yanacocha, 1 ♀. PERÚ: Maraynioc, 2 ♂, 2 ♀; Pariayacu, 2 ♂; Levanto, 1 ♂; Leimebamba, 1 ♂; Taulis, 2 ♂, 1 ♀; Chugur, 2 ♂; La Lejia, 1 ♂, 2 ♀; Molinopampa, 1 ♀[1]; mountains east of Balsas, 1 ♀[1]; mountains near Huánuco, 2 ♂[1], 1 ♀[1].

*O. f. berlepschi.*—PERÚ: Machu Picchu, Cedrobamba, 1 ♂, 1 ♀; Limbani, 1 ♂. BOLIVIA: Cocapunco, 1 (?); (no locality), 1 (?).

*O. f. superciliosa.*—VENEZUELA: Mérida region (Escorial, La Culata, El Valle, Conejos, Lagunillas, El Loro, Mérida), 10 ♂, 5 ♀, 7 (?).

### Ochthoeca leucophrys leucometopa Sclater and Salvin

*Ochthoeca leucometopa* SCLATER AND SALVIN, 1877, P. Z. S. London, p. 19—part; type from Chihuata (above Arequipa), Perú; British Mus.

Six males and two females from Cocachacra, two females from Lomas (near Cachendo), and a female from Jesus (above Arequipa) all agree in the relative grayness of the upper parts, the broad and well-defined white forehead, and the large bill. The uropygium is somewhat brighter and warmer than the mantle but much less so than in any of the birds from the true Andean plateau. The range of *leucometopa* thus appears to be restricted to the Pacific slope of the Andes from the neighborhood of the Rimac Valley, above Lima, south to extreme northern Chile. The highlands of Junín are inhabited by a distinct form which is much darker than the coastal birds and which has been separated under the name *interior*, next to be discussed.

Records of *leucometopa* are from Chihuata, Islay, and Palca.

### Ochthoeca leucophrys interior Zimmer

*Ochthoeca leucophrys interior* ZIMMER, 1930 (Dec. 10), Field Mus. Nat. Hist. Publ., Zool. Ser., XVII, p. 365—mountains near Huánuco, Perú; ♂; Field Mus. Nat. Hist.

A male from Acobamba, a female from Oroya, and two males, three females, and a young bird of uncertain sex from Chipa maintain the characters given for this central Peruvian form. The general coloration is dark, especially on the top of the head where its dusky hue is in greater contrast to the color of the back than in the allied forms. The bill is about as broad as in *leucometopa* although averaging a little shorter.

The range of *interior* may thus be expanded to the southward to cover the Junín region from Huánuco on the north to the valley of the upper Mantaro on the southeast. Records are from Tarma, Acobamba, Acancocha, and Huanta.

**Ochthoeca leucophrys urubambae,** new subspecies

TYPE from Ttica-Ttica, near Cuzco, Perú; altitude 11,500 feet. No. 145,230, American Museum of Natural History. Adult male collected July 2, 1916, by Frank M. Chapman and George K. Cherrie.

DIAGNOSIS.—Similar to *O. l. leucometopa* of the coast region of southern Perú and northern Chile, but with the coloration of the back much less grayish and more buffy brownish; forehead averaging more narrowly and less sharply white; bill shorter and more slender. Compared with *O. l. interior* of the Junín highlands, the dorsal coloration is paler and the bill is more slender though not always shorter.

RANGE.—Urubamba Valley, Perú; Temperate Zone.

DESCRIPTION OF TYPE.—Top of head Mouse Gray; forehead rather narrowly whitish, tinged with gray medially but purer white over the lores and continuous with a broad white superciliary stripe; mantle light Hair Brown anteriorly, tinged with Drab posteriorly and passing into Buffy Brown on the rump; upper tail-coverts like the upper mantle. Lores sooty gray continuous with a narrow blackish line over the eye, widening into a broad dark fuscous patch occupying the auriculars; chin and throat grayish white centrally, more grayish laterally; the malar region, a subocular lunule, and the base of the auriculars also whitish; breast light grayish, darker gray on the sides; belly, flanks, and under tail-coverts white with a faint grayish tinge, especially laterally. Wings fuscous; outer margins of inner secondaries buffy; tips of inner secondaries and outer margins and tips of tertials more whitish; bend of wing, outer margin of outer primary-covert, and a narrow outer margin of outer primary white; greater upper wing-coverts with rather inconspicuous margins of light cinnamomeous buff; similar margins suggested on the median series; under wing-coverts and inner margins of the remiges white. Tail fuscous black with fine whitish tips on most of the rectrices; outer rectrices with entire outer webs white except near the tips where the blackish color of the inner web encroaches in a small dark spot, not reaching the outer margin. Bill (in dried skin) black; feet black. Wing, 80 mm.; tail, 73; exposed culmen, 11.5; culmen from base, 15.5; tarsus, 21.5.

REMARKS.—Female similar to the male.

The length of bill (culmen from base) appears to vary between 15 and 16.5 mm. while in *leucometopa* it measures from 16.5 to 19. The difference in the width of the bill is less easily shown by tabulated measurements, but the appearance in the two forms is quite markedly different in most specimens and in series is particularly noticeable.

As in the allied forms, occasional skins show ill-defined wing-bars of a rufescent tone and young birds may have such bands well developed and bright cinnamon-rufous, with considerable resemblance to typical *leucophrys*.

Records are from Chospiyoc, Calca, Pisac, Cuzco, Tinta, Anta, Urubamba, Lauramarca, and Paucartambo.

In northern Perú, on the eastern side of the Western Andes (including the valleys of the Río de Huaras and the Río Chuquicara), the birds are again different from *interior* and *leucometopa* and are closer to *urubambae*,

although more warmly colored on the upper parts. In 1930 (Field Mus. Nat. Hist. Publ., Zool. Ser., XVII, p. 365) I identified birds of this sort as *leucometopa* with some hesitation, but a more adequate series now at hand reveals their distinction. This form may be known as follows.

**Ochthoeca leucophrys cajamarcae,** new subspecies

TYPE from Cajamarca, Perú; altitude 9500 feet. No. 495,212, American Museum of Natural History. Adult male collected June 22, 1894, by O. T. Baron.

DIAGNOSIS.—Similar to *O. l. interior* of the Eastern Andes in the Junín region of central Perú, but coloration of the upper parts somewhat lighter, the top of the head, especially, not so dark, and with a generally warmer tone on the back; bill slightly smaller. Compared with *O. l. urubambae* of the Urubamba region, the upper parts are more deeply colored. Compared with *leucometopa* of the southern coastal region, the hue of the upper parts is decidedly warmer and darker, and the bill is smaller as in *urubambae*.

RANGE.—Humid Temperate Zone of northern Perú in the Western Andes, from above Aguamiro to the Cajamarca region.

DESCRIPTION OF TYPE.—Forehead and broad superciliary stripe white; top of head dark Hair Brown; mantle slightly darker than Hair Brown anteriorly, a little darker and warmer posteriorly, and passing into a definite rufescent hue (near light Bister × Sepia) on the rump; upper tail-coverts like the anterior mantle. Lores dark Fuscous, slightly tinged with grayish; a narrow fuscous line over the eye; auriculars dark fuscous with some white at base of lower feathers; a small whitish lunule below the eye; malar region whitish; chin and throat pale grayish, darker laterally; breast pale gray, darker on the sides; flanks lighter gray; middle of belly and under tail-coverts white. Wings Fuscous; outer margins of the secondaries and tertials whitish, with a slight buffy tinge basally; bend of wing, outer web of outer primary covert, and a narrow outer margin of outer primary white; median and greater upper wing-coverts with inconspicuous margins of dull rufescent brown; under wing-coverts grayish white; inner margins of remiges buffy whitish; tail Fuscous with outer web of outer rectrices white except at tip where the white is restricted to a narrow outer margin; all rectrices with suggestions of narrow white tips. Bill (in dried skin) blackish; feet dark brown. Wing, 79 mm.; tail, 70: exposed culmen, 11; culmen from base, 16; tarsus, 22.

REMARKS.—Female like the male.

A topotypical male is somewhat darker than the average, showing an approach toward the characters of *interior*.

**Ochthoeca leucophrys piurae** Chapman

*Ochthoeca piurae* CHAPMAN, 1924 (June 20), Amer. Mus. Novitates, No. 118, p. 3—Palambla, Perú; ♂; Amer. Mus. Nat. Hist.

The two original specimens, male (type) and female are the only recorded examples of this interesting form. It is the most distinct of the various members of the group, although its affinity is closer to *leucometopa* than to any other species. It is decidedly smaller than its conspecies and has the bill exceptionally short, though broad. The back is

even more rufescent than in typical *leucophrys* and darker, although the bands across the wing are much the same in the two birds. The outer web of the outer rectrix is entirely white as in many skins of *leucophrys* and, in addition, the entire outer web of the outer primary is similarly white, whereas only the outer margin of the outer web of this feather is white in the allied forms. The white lunule below the eye is not so positive in *piurae* as in its conspecies, but it is present and adds one more link in the chain of characters pointing to the relationship herein accepted.

SPECIMENS EXAMINED

*O. l. piurae.*—PERÚ: Palambla, 1 ♂ (type), 1 ♀.

*O. l. cajamarcae.*—PERÚ: Cajamarca, 3 ♂ (incl. type), 1 ♂[1]; Cajabamba, 3 ♂, 1 ♀; Santiago, 1 ♂, 1 ♀; Huamachuco, 1 ♀; Tulpo, 1 (?); Macate, 1 ♂[1]; Cullcui, 1 ♂[1].

*O. l. interior.*—PERÚ: Mountains near Huánuco, 1 ♂ (type)[1], 1 ♀[1]; La Quinua, 2 ♂[1], 2 ♀[1]; Acobamba, 1 ♂; Chipa, 2 ♂, 3 ♀, 1 (?); Oroya, 1 ♀.

*O. l. urubambae.*—PERÚ: Ttica-Ttica, 3 ♂ (incl. type); Ollantaytambo, 2 ♂, 1 ♀; Huaracondo Cañon, 4 ♂, 3 ♀, 1 (?); Cuzco, 3 ♂, 4 ♀; Lucre, 2 ♂.

*O. l. leucometopa.*—PERÚ: Jesus, Arequipa, 1 ♀; Cocachacra, 6 ♂, 2 ♀; Lomas, near Cachendo, 2 ♀; Matucana, 3 ♂[1]. CHILE: Putre, 1 ♂[1], 2 ♀[1].

*O. l. leucophrys.*—BOLIVIA: Vinto, Cochabamba, 2 ♂, 1 ♀; Tujma, 4 ♀; Parotani, 2 ♂; California, Santa Cruz, 1 ♀.

*O. l. tucumana.*—ARGENTINA: Norco, Tucumán, 3 ♂, 1 (?); Sarmiento, 1 ♀; La Cienaga 1 ♂, 1 ♀; Anfama, 1 (?)[1]; Aconquija, 1 (?)[1]; Las Pavas 5 (?)[1]; Tafi Viejo, 1 ♀.

**Ochthoeca rufi-pectoralis rufi-pectoralis** D'Orbigny and Lafresnaye

*F(luvicola) rufi-pectoralis* D'ORBIGNY AND LAFRESNAYE, 1837, Mag. Zool., VII, cl. 2, Syn. Av., p. 60—Ayupaya, rep. Boliviana; Paris Mus.

Limbani, 5 ♂, 1 ♀, 2 (?); Oconeque, 1 ♂.

Typical *rufi-pectoralis* is separable from the other members of the species by the absence of the broad rufous band across the wing on the tips of the greater wing-coverts. This band, nevertheless, is indicated in numerous specimens by touches of rufous at the tips of the greater coverts which may be complete enough to form a very narrow line across the wing. Such indication is more prevalent in birds from southeastern Perú (approaching the range of *tectricialis*), although it is present also in Bolivian examples from as far east as the Cochabamba region. Taczanowski describes a specimen with a narrow rufous wing-bar, from Cachupata, Perú, placing it in *rufi-pectoralis* as does Sclater in the 'Catalogue of Birds of the British Museum.' Hellmayr places these references

[1] Specimens in Field Museum of Natural History, Chicago.

under *tectricialis* which has narrower wing-bars than the other forms to the northward, though these bars are wider than in any of the extreme examples of *rufi-pectoralis* at hand.

Cachupata, though in the Department of Cuzco, is east of the Eastern Andes, in the same general region as the Carabaya and Marcapata districts which are in the range of *rufi-pectoralis*, and from Taczanowski's description of his Cachupata bird I conclude that it was a specimen very like some of the skins of *rufi-pectoralis* now before me; hence I replace the record under the Bolivian form.

Other records of *rufi-pectoralis* are from Marcapata and Limbani.

**Ochthoeca rufi-pectoralis tectricialis** Chapman

*Ochthoeca lessoni tectricialis* Chapman, 1921, Bull. U. S. Nat. Mus., CXVII, p. 88—Huaracondo Cañon, Perú; ♂; Amer. Mus. Nat. Hist.

Huaracondo Cañon, 1 ♂ (type), 1 ♀; Cedrobamba, 1 ♂; Maraynioc, 5 ♂, 4 ♀, 1 (?); Rumicruz, 2 ♂, 4 ♀.

Extreme examples of this form have the rufous bar on the wing moderately narrow, though quite clear and distinct, but some examples at the other extreme have it as wide as in the narrowest extreme of *rufopectus*. The average is thus somewhat less than in *centralis*. The back averages a little browner than in *centralis* but decidedly browner than in *rufopectus* or *rufi-pectoralis*, and the rufous color of the breast is relatively dark and extensive as in the typical form.

The birds with the narrowest wing-bars appear to be those from the Urubamba Valley, in closest proximity to the range of *rufi-pectoralis*, while the skins from those nearest the range of *centralis* approach that form more closely. Intergradation is thus regular in respect to this character.

Records are from above Torontoy, Machu Picchu, and Pumamarca.

**Ochthoeca rufi-pectoralis centralis** Hellmayr

*Ochthoeca rufi-pectoralis centralis* Hellmayr, 1927 (April 11), Field Mus. Nat. Hist. Publ., Zool. Ser., XIII (5), p. 49—Panao Mts., Perú; ♀; Field Mus. Nat. Hist.

San Pedro, south of Chachapoyas, 2 ♀; La Lejia, 4 ♂, 1 ♀, 1 (?); Levanto, 1 ♂, 1 ♀; Leimebamba, 2 ♀.

In this form, the wing-bar averages wider than in *tectricialis* (although it is equalled by some specimens of that form); the back is as in *tectricialis*, being browner than in *rufi-pectoralis* and *rufopectus;* and the pectoral area is much like that of *rufopectus* in extent (narrower than in

*tectricialis* and *rufi-pectoralis*) though somewhat clearer rufous than in *rufopectus*, less intense than in *tectricialis* or *rufi-pectoralis*.

I have not seen examples from west of the Marañón east of the Western Andes, which Hellmayr referred to *centralis* (without, however, examining the specimens). There is a possibility that they may be referable to *rufopectus* which is found on the western slope of these mountains in Perú but on both eastern and western drainages in Ecuador. Specimens from Molinopampa, near Chachapoyas, are somewhat intermediate between the two forms, but the specimens listed above are all clearly *centralis*. The record from Paucal rather certainly belongs to *rufopectus* (q.v.).

Records are from Panao Mountains, mountains near Huánuco, and Molinopampa with certainty; Tambillo, Cutervo, Palto, and Tamiapampa, with some question.

**Ochthoeca rufi-pectoralis rufopectus** Lesson

*Tyrannulus rufopectus* Lesson, 1844 (Aug.), Écho du Monde Savant, XI, No. 10, p. 233—"Colombie" = Bogotá.

El Tambo, 1 ♂, 2 ♀; Chugur, 2 ♂; Taulis, 2 ♂, 3 ♀, 1 (?).

Birds from the western slope of the Western Andes in Perú are inseparable from all the Ecuadorian specimens and most of the Colombian ones, excluding *poliogastra* of the Santa Marta region. Whether or not these Colombian birds all belong to *rufopectus* is not determinable at present. Chapman (1917, Bull. Amer. Mus. Nat. Hist., XXXVI, p. 429) pointed out that a bird from Palo Hueco, near Bogotá, was more olivaceous above than more western (and southern) specimens, while old "Bogotá" skins were much ruddier.

I have seen seven "Bogotá" skins, including the three mentioned by Chapman, and all agree in their relative paleness and ruddiness. Young birds sometimes exhibit a similar tone of coloration, but the Bogotá birds are not young.

On the other hand, a specimen from the Western Andes, above Salento, is very much like the Palo Hueco bird, although a number of skins from Laguneta (between Bogotá and Salento) and one from the Paramillo trail, farther to the northward, are quite like the average Colombian and Ecuadorian examples.

It is quite possible that the ruddy color of the Bogotá birds is due to postmortem change, but it seems likely that the original color of these specimens was paler on the back than the dark hue exhibited by most of the Colombian examples. The problem must await solution by the

collection of a series of fresh specimens in the vicinity of Bogotá to determine the exact character of typical *rufopectus*. Should it be found to be a regularly pale-backed form, a new name must be supplied for the extensive population ranging from the Central and Western Andes of Colombia through Ecuador to northwestern Perú.

I have noted on an earlier page that records from the eastern side of the Western Andes, west of the Marañón, (Tambillo, Cutervo, Palto, and Molinopampa) may possibly belong to this form instead of to *centralis*. There is a direct Temperate Zone connection between Cutervo and Chugur and also a broken Subtropical Zone connection, whereas between Cutervo and the Chachapoyas region the Subtropical Zone is broken by the cañon of the Marañón; the Temperate Zone is similarly interrupted in the north though it is continuous by way of the extreme head of the Río Marañón, a long way to the south. Nevertheless, both patterns of distribution occur in different species and it is impossible to speak with certainty in the present case without an examination of pertinent material. Chugur specimens are *rufopectus* and the Chachapoyas birds are *centralis*. The records from the dubious localities may be left with *centralis*, where Hellmayr has assigned them, until proof of the contrary is forthcoming.

The record from Paucal I would unhesitatingly transfer to *rufopectus* which occurs at Taulis only a few miles away in the same region.

**Myiotheretes striaticollis striaticollis** (Sclater)

*Taenioptera striaticollis* Sclater, 1853 (June), P. Z. S. London, XIX (for 1851), p. 193, Pl. xlii—Ecuador; coll. of Edward Wilson, repository unknown.

*Orodynastes striaticollis columbianus* Todd, 1913 (August 8), Proc. Biol. Soc. Wash., XXVI, p. 171—San Lorenzo, Santa Marta Mts., Colombia; ♂; Carnegie Mus.

Cajabamba, 2 ♂, 1 ♀; Cajamarca, 1 ♀; Taulis, 3 ♂; La Lejia, 2 ♂; San Pedro, 1 ♀; Uchco, 1 ♀; Utcuyacu, 2 ♂.

Peruvian birds from as far south as the Junín region are not clearly separable from Ecuadorian and Venezuelan specimens although there is a tendency toward heavier and blacker streaks on the anterior under parts in the Peruvian examples.

Skins from the extreme southeastern part of the country, on the other hand, are readily distinguishable and belong to the north-Argentine subspecies, *pallidus*, next to be discussed.

This raises the question of the identity of *Tyrannus rufiventris* of D'Orbigny and Lafresnaye, heretofore placed in the synonymy of typical *striaticollis* but possibly properly belonging under *pallidus*. Fortunately,

the name is preoccupied and its identity is only a matter of academic interest which can have no effect on the nomenclature of the group. The identity of other Bolivian specimens is discussed under *pallidus*.

Records of *striaticollis* are from Huancabamba, Garita del Sol, Pariayacu, Auquimarca, Chachapoyas, Succha, Paucal, Chinchao, and Panao.

**Myiotheretes striaticollis pallidus** Berlepsch

*Myiotheretes striaticollis pallidus* Berlepsch, 1906 (May), Bull. Brit. Orn. Cl., XVI, p. 98—Norco, Tucumán, Argentina; ♂; Frankfort Mus.

Inca Mine, 1 ♂, 1 ♀; Santo Domingo, 2 ♂, 1 ♀; Marcapata, 1 (?).

Compared with six birds from the Tucumán region, these southeast-Peruvian examples agree quite closely, confirming Chapman's observation (1926, Bull. Amer. Mus. Nat. Hist., LV, p. 472) on the Inca Mine specimens and one Tucumán bird.

The case is not so simple with regard to Bolivian specimens. D'Orbigny and Lafresnaye (1837, Mag. Zool., VII, cl. 2, Syn. Av., p. 45) described the Bolivian birds under the name *Tyrannus rufiventris* (antedated by Vieillot, 1823). The reference has been placed under typical *striaticollis* by all authors, and Hellmayr found the type to be "not appreciably different from Peruvian and Ecuadorian examples." I have two examples from Bolivia; one from near La Paz and the other from the Cochabamba region. The La Paz (Pongo) skin is in worn condition but agrees well with a comparable specimen from Santo Domingo, Perú. The Cochabamba (Incachaca) skin is very fresh and is very similar to a bird of the same sex and season (female; May) from Concepcion, Tucumán, except that it is slightly darker on the upper surface and has a slightly larger bill. It is not, however, so dark nor so large-billed as typical *striaticollis*, nor is the breast so heavily streaked nor the belly so clear rufescent as in the northern form, both being much more like *pallidus*. There is about the same amount of difference between this bird and the series of *pallidus* as is exhibited by the extremes of *striaticollis*, and it seems probable that it represents only an extreme of individual variation in the southern form. Until more evidence is forthcoming, therefore, I believe that D'Orbigny and Lafresnaye's *rufiventris* should be included in the synonymy of *pallidus*.

Records from Perú which should belong to *pallidus* are from Huaynapata and Cachupata.

**Ochthoeca diadema cajamarcae** Carriker

*Ochthoeca diadema cajamarcae* Carriker, 1934 (June 25), Proc. Acad. Nat. Sci. Phila., LXXXVI, p. 326—Chira, near Tambillo, Perú; ♂; Acad. Nat. Sci. Phila.

I have not seen this form. The only given character which appears to be outside the normal range of variation of *gratiosa* is the absence of the olivaceous band across the chest, and this feature is shown by examples of *gratiosa* from the central Andes of Colombia. The form may be provisionally recognized until more material is forthcoming to substantiate its validity. The material used for comparison by its author was wholly inadequate to show the variations of the previously known forms. The wide gap between the region of Tambillo and the northernmost part of Ecuador gives a geographic isolation for *cajamarcae* which is, perhaps, the strongest point in its claim to recognition.

An earlier record which presumably belongs here is from Tambillo.

**Ochthoeca cinnamomeiventris angustifasciata** Chapman

*Ochthoeca thoracica angustifasciata* Chapman, 1926 (Oct. 16), Amer. Mus. Novitates, No. 231, p. 2—La Lejia, north of Chachapoyas, Perú; ♂; Amer. Mus. Nat. Hist.

La Lejia, 3 ♂ (incl. type), 3 ♀; Leimemamba, 1 ♂, 1 ♀; Chachapoyas, 1 ♂.

A well-marked form, readily distinguishable from the birds of the southeastern part of Perú and Bolivia although approached by certain examples from the Junín region (cf. account of *O. c. thoracica*).

Taczanowski (1884, 'Orn. Pérou,' II, p. 197) recorded a specimen of "*nigrita*" from Tambillo, from which locality he also recorded "*thoracica*" (= *angustifasciata*). The measurements of his specimen of "*nigrita*," a female, show the tail to be 55 mm., a dimension much too large for true *nigrita* though well within the measurements of *angustifasciata*. This discrepancy, together with the fact that *thoracica*, and presumably *angustifasciata*, may lack the chestnut pectoral band in certain immature examples (cf. account of *thoracica*), points to the great probability that this Tambillo bird was misidentified, a conclusion already reached by Hellmayr.

Ménégaux (1910, Rev. Franc. d'Orn., I, p. 322) records "*thoracica*" from Cumpang (= Compan). It is probable that the record belongs to *angustifasciata*, which was undescribed in 1910. Other records assignable to the north-Peruvian form are from Tamiapampa, Molinopampa, and Tambillo.

**Ochthoeca cinnamomeiventris thoracica** Taczanowski

*Ochthoeca thoracica* Taczanowski, 1874, P. Z. S. London, p. 133—Chilpes, Perú; ♂; type formerly in Warsaw Mus., now lost.

Chilpes, 1 ♂, 3 ♀; Maraynioc, 1 ♂; Rumicruz, 3 ♂, 3 ♀, 2 (?);

Torontoy, 1 ♀; Santo Domingo, 2 ♀; Limbani, 1 ♀; Inca Mine, 1 ♂, 1 ♀.

It is somewhat unfortunate that the present form was described from a region where the representatives of the species are least positive in their characters. Although the specimens from central Perú have the rufous pectoral band averaging wider than in *angustifasciata* of northern Perú, they are exceeded in this respect by the average of specimens from southeastern Perú and Bolivia. Likewise, the white superciliary stripe is more extended in the northern birds and less in the southernmost while it is intermediate in the Junín examples. The top of the head is inclined to be rather darker in the southern birds and paler in the northern ones, and again this is intermediate in the specimens from the central part of the country.

There is thus a regular progression of characters from Bolivia and southeastern Perú to northern Perú, as has been pointed out by Chapman (1926, Amer. Mus. Novitates, No. 231, p. 3), with the two extremes at opposite ends of this range. On the whole, the typical examples are somewhat closer to the southern extreme, as Chapman also concluded. In any case, it is better to leave *thoracica* with some positive characters than to relegate it to an intermediate position and accordingly I refer the southern birds to it in preference to naming this extreme as new.

I have no doubt of the representative character of *thoracica* (and *angustifasciata*), *cinnamomeiventris*, and *nigrita*. Colombian and Ecuadorian birds (*cinnamomeiventris*) have the pectoral band widened to include the flanks and abdomen, though not the throat and under tail-coverts, and the Venezuelan examples (*nigrita*) have lost the band entirely. In *cinnamomeiventris*, furthermore, the white of the under wing-coverts and axillars is more pronounced than in the other forms. Otherwise, these birds are all very much alike. The Colombian and Ecuadorian form is intermediate in size between the Peruvian and the Venezuelan forms, with the Venezuelan *nigrita* the smallest of the series.

These differences mentioned are greater than those which distinguish *thoracica* from *angustifasciata*, but they are of exactly the same nature, being carried to a greater extreme. As a combined group, the series of forms is easily segregated from the other members of the genus by the characters which they share in common, and I believe the best expression of their obvious relationship is accomplished by uniting them into a common species of which *cinnamomeiventris* is the oldest name.

It may be of interest to add that in a small series of *nigrita*, several specimens show traces of rufescence on the tips of the axillars, on the

abdomen, or even on the margins of certain breast-feathers. Although this is far from the formation of a definite pectoral band, it is an indication of some value in the determination of relationships. Similarly, specimens of *thoracica* in immature plumage sometimes have the entire abdomen tinged with brown of a greater or lesser degree of rufescence. On the other hand, immature examples of *thoracica* sometimes lack the chestnut band across the breast, according to accounts, although it is definitely present in all the birds I have at hand. A specimen without this chestnut is presumed to have been the basis for Taczanowski's record of "*nigrita*" from Tambillo (cf. account of *angustifasciata*).

Records of *thoracica* are from Higos and Uruhuasi.

**Ochthoeca albidiadema spodionota** Berlepsch and Stolzmann

*Ochthoeca jelskii spodionota* Berlepsch and Stolzmann, 1896, P. Z. S. London, p. 356—Pariayacu, Marayniоc, Perú; ♂; Warsaw Mus.

*Ochthoeca jelskii boliviana* Carriker, 1935 (Oct. 10), Proc. Acad. Nat. Sci. Phila., LXXXVII, p. 331—Hichuloma, Dept. La Paz, Bolivia; ♂; Acad. Nat. Sci. Phila.

Rumicruz, 1 ♂.

Compared with a male from Cedrobamba, above Machu Picchu, in the U. S. National Museum collection. Both birds agree in the decidedly olivaceous brown hue of the lower back, grayish upper mantle, and relatively inconspicuous bar across the median wing-coverts; the bar on the greater coverts and the cinnamomeous outer edges of the tertials and inner secondaries are broad and well-marked in the Cedrobamba bird but less well developed in the Rumicruz specimen where the edges of the inner secondaries are grayish and those of the tertials very narrowly rufous. The two birds in hand agree very well with the original description of this form.

In describing "*boliviana*," Carriker evidently had only immature specimens of *spodionota* for comparison. His description of *spodionota* as having the mantle chestnut brown and the upper tail-coverts ochraceous agrees neither with the original description of this form nor with the two birds now before me, but differs in about the same degree as young *jelskii* differs from the adults of that form; unfortunately, I have no young *spodionota* for examination in this connection. In any case, the description of "*boliviana*" shows no characters distinguishing it from the adult Peruvian birds. Three specimens from Incachaca, Boliva, in the Carnegie Museum, Pittsburgh, also appear to be typical *spodionota*, extending the range of this form eastward to the Cochabamba region.

This subspecies bridges the gap between *jelskii*, with its heavily

banded wings, and *albidiadema, frontalis,* and *orientalis,* with only vestiges of wing-bars. In the warmth of dorsal coloration, however, the three northernmost forms show the intermediate characteristics, while in the degree of cinnamomeous coloration of the lower flanks and crissum, *jelskii* is intermediate.

Peruvian records are from Culumachay and Patás.

**Ochthoeca albidiadema jelskii** Taczanowski

*Ochthoeca jelskii* Taczanowski, 1883, P. Z. S. London, p. 71—Montaña de Nancho, Perú; ♂; Raimondi Coll., Lima, Perú.

Palambla, 1 ♂; El Tambo, 1 ♀, 1 (?); Taulis, 1 ♂, 3 ♀; Chugur, 1 ♂, 2 ♀, 1 (?).

Adults of this subspecies are rather bright chestnut brown on the lower back and much brighter rufous on the rump, with the upper tail-coverts sooty brown variably tinged with dark rufous, much like the upper mantle. The pileum is fuscous black, about as in *frontalis;* the belly and under tail-coverts are white, although there is a variable tinge of buff on the extreme lower flanks. The chest, sides, and upper flanks are gray, while the throat is gray with indistinct whitish streaks. The wings are crossed by two broad, rufous bars of about equal width. The superciliary stripes, except above the lores, are pure white. The supraloral area and forehead are somewhat paler yellow than in *spodionota* with the frontal band narrower than in that form.

The juvenal plumage differs from the adult in various particulars. The back is more intensely rufous, and the top of the head is brown, tinged with chestnut posteriorly but somewhat grayish on the anterior crown. The rump is very bright and the upper tail-coverts are rufescent. The forehead is rather dull buffy yellow and the superciliary stripes are definitely buff. The under parts have a buffy tone, giving the chest a drab hue but appearing as light buff on the belly and under tail-coverts and cinnamon on the lower flanks. The wings are marked as in the adult although the bars tend to be paler and the ground color somewhat browner. Specimens passing from this plumage to the adult one show various degrees of intermediacy and skins which may be in the first annual dress are much like the adults except that the top of the head is a little lighter fuscous and the superciliaries not so purely white. One such example, a bird without indicated sex, from Taulis, has the superciliaries faintly tinged with yellow rather than with buff, a condition suggesting that the relationships of the present group and *pulchella* will bear still more intensive study.

**Ochthoeca albidiadema orientalis** Chapman

*Ochthoeca frontalis orientalis* CHAPMAN, 1924 (June 20), Amer. Mus. Novitates, No. 118, p. 4—Oyacachi, upper Papallacta River, Ecuador; ♂; Amer. Mus. Nat. Hist.

I have seen no specimens of this form from Perú but Carriker records it from Atuén, above Leimebamba. This leaves a wide expanse of territory on the eastern side of the Andes in southern Ecuador where the form may yet be found to occur but from which there is no existing record.

[*Ochthoeca albidiadema frontalis* (Lafresnaye) was described from "Pasto, in Peruvia" but is not a Peruvian form; Pasto is in Colombia and the type, now in the Academy of Natural Sciences of Philadelphia, has been determined by Stone and others as representing the form which occurs in western Colombia.]

**Ochthoeca pulchella pulchella** Sclater and Salvin

*Ochthoeca pulchella* SCLATER AND SALVIN, 1876, P. Z. S. London, p. 355—Tilotilo, Yungas of La Paz, Bolivia; British Mus.

"Camp 1," below Limbani, 1 ♂, 1 ♀; Rumicruz, 3 (?).

The three birds from Rumicruz are immature but apparently belong to *pulchella* rather than to *O. albidiadema spodionota* which also occurs at Rumicruz. Their measurements agree well with the adults of *pulchella* but are smaller than those of *spodionota* except for the bill which, in *pulchella*, is heavier than in the *albidiadema* group. One of the specimens has acquired part of the adult feathering of the superciliary stripe which is shown to be yellow instead of white. Another has some fresh feathering on the middle back which is warmer and browner than in *spodionota*. The wing-bars are decidedly broader than in adult *spodionota* but are like those of adult *pulchella* in development though somewhat paler in hue. The under parts have an olivaceous tone quite unlike the grayish tone of the comparable plumage of *albidiadema jelskii* to which the young *spodionota* may bear much resemblance, although I have no young *spodionota* with which to establish this as a fact.

Adult *pulchella* has a definitely olivaceous tinge on the mantle and the top and sides of the head which, together with the yellow superciliaries, is suggestive of relationship to the *diadema* group. The *diadema* group has similar proportions, including the stronger bill in comparison to *albidiadema* and its allies. Carriker (1933, Pr. Acad. Nat. Sci. Phila., LXXXV, p. 23; 1935, *op. cit.*, LXXXVII, p. 331) has pointed out certain conflicts in the ranges of *p. pulchella* and *p. similis* on the one hand, and *spodionota* and *orientalis* on the other hand. The present evidence

of the occurrence of both *jelskii* and *pulchella* at Rumicruz still further indicates the specific separation of the *pulchella* and *albidiadema* groups. The Carnegie Museum, Pittsburgh, has three specimens each, of both *spodionota* and *pulchella* from Incachaca, Bolivia, showing the similar coincidence of the two species at the most eastern ends of their respective ranges. There is no such conflict between *diadema* and *pulchella;* the ranges appear to be separated by the cañon of the middle Marañón in northern Perú.

More material of both these species from northern Perú is needed to establish clear relationship and for the present they may be left specifically distinct, although their possible affinity should be kept in mind.

*O. pulchella pulchella* is recorded also from Oconeque near Limbani.

**Ochthoeca pulchella similis** Carriker

*Ochthoeca pulchella similis* Carriker, 1933 (March 24), Proc. Acad. Nat. Sci. Phila., LXXXVII, p. 23—Leimebamba, Perú; ♂; Acad. Nat. Sci. Phila.

I have not seen this form which is described as having paler wing-bars than *pulchella*, cinnamon-buff under tail-coverts, paler ashy under parts, and buffy brown flanks, as well as darker head and browner, less chestnut brown, rump and upper tail-coverts. These features in large part are shared by immature *pulchella*, except for the ashy under parts and the dark crown. No measurements are given for this subspecies, although it is stated that the wing and tail average about four millimeters longer than in *pulchella*, apparently about as in *jelskii* and *spodionota.*

Known only from the type locality.

**Colonia colonus niveiceps** Zimmer

*Colonia colonus niveiceps* Zimmer, 1930 (Dec. 10), Field Mus. Nat. Hist. Publ., Zool. Ser., XVII (7), p. 368—Poco Tambo ( = Pucatambo), Perú; ♂; Field Mus. Nat. Hist.

Additional specimens from various parts of Perú show that *niveiceps* ranges through the humid Upper Tropical Zone throughout the country. Specimens from northern Bolivia seem to be assignable to the same form. As a rule the top of the head is definitely paler than in typical *colonus*, although an occasional specimen of *colonus*, especially if worn and faded, agrees with the darker end of the Peruvian series; none of them reaches so pale an extreme.

There appears to be a definite difference in the length of the tails of male *niveiceps* and the same sex of *colonus.* In the Peruvian form the central rectrices vary between 179.5 and 205 mm.; in *colonus*, between

148 and 170. One skin from Tulumayo, Junín, sexed as a male, has the tail only 162 mm., but the specimen has the color characters of a female and may have been wrongly sexed, although the tail is decidedly longer than in the other females, which range between 121 and 153 mm.

A series of nine specimens from Zamora, eastern Ecuador, is very puzzling. In color, the males are readily distinguished from *niveiceps*, having the top of the head as dark as in the darkest *colonus*. In measurement of the tail they vary between 159 and 194 mm., averaging larger than *colonus* but smaller than *niveiceps*. They appear, also, to be faintly deeper black in general coloration and to have the white space immediately over the eye somewhat more extended posteriad along the upper eyelid. In *colonus* the black of the sides of the head tends to reach forward along the upper eyelid and in a number of specimens attains contact with the black loral patch, thus cutting off the white of the superciliary region from the orbit. In the Zamora birds, the white sometimes occupies the entire upper eyelid.

These differences are hardly pronounced enough to warrant the application of a separate name for the Zamora birds, although it becomes necessary to refer these provisionally to *colonus*. The range of *colonus* is thus divided by the interposition of *niveiceps*. Possibly a longer series from Zamora may sometime show positive characters which cannot be detected in the material at hand. There is no decided approach toward *fuscicapilla* of northeastern Ecuador although the darker cap and more extended white superciliary may point in that general direction.

In *niveiceps*, the black of the upper eyelid is never so extended as in extreme *colonus* and rarely as limited as in the Zamora birds. Its variability here suggests that it may not prove to be constant in southern Ecuador.

Additional Peruvian records are from Garita del Sol, Paltaypampa, Monterico, and Yahuarmayo.

None of the Peruvian localities are from the lower portions of the Tropical Zone, nor does *fuscicapilla* appear to descend to any lower level. On the other hand, *leuconota* seems to be found at correspondingly lower elevations, reaching the coast as at Esmeraldas and Barbacoas.

### Specimens Examined

*C. c. colonus*.—Brazil: Rio de Janeiro, Therezopolis, 1 ♂, 2 ♀, 1 ♂[1], 1 ♀[1]; Rio de Janeiro, 1 [♂]; Ponte Marombe, 1 ♂; São Paulo, Victoria, 2 ♂; Piquete 1 ♂; Bahia, Itirussú, 2 ♂, 2 ♀, 1 (?); Taguaquara, 2 ♀, 1 (?); Tequié, 1 ♀; "Bahia," 1 [♀]; Goyaz, Fazenda Esperanza, 3 ♂, 1 ♀; Minas Geraës, Rio Jordão, 2 ♂;

[1] Specimens in Field Museum of Natural History, Chicago.

Fazendinha, 1 ♂; Rio de las Velhas, 1 ♂[1]; "Minas Geraës," 1 ♂; Paraná, Fazenda Iguassú, 1 ♂; Guayra, 2 ♂, 1 (?); Espirito Santo, Santa Barbara de Caparão, 1 ♂; Santa Catharina, Palmital, 2 ♂, 2 ♀, 1 (?); Hansa, 1 ♂, 2 (?); Salto Pirahy, 1 ♂, 1 ♀; Maranhão, São João dos Patos, 3 ♂, 1 ♀; Matto Grosso, Chapada, 1 ♂, 1 [♀], 1 (?); Tapirapoan, 1 "♂" [ = ♀ ?]; "Brazil," 2 (?). ARGENTINA: Iguazú, 1 ♂, 2 ♂[1], 1 ♀[1]; Eldorado, 1 ♂[1]. PARAGUAY: east of Caaguasú, 3 ♂, 1 ♀; east of Yhú, 1 ♂; Paso Yuvay, 1 ♂. "Bogotá," (!errore), 2 ♀.

*C. c. colonus* ?.—ECUADOR: Zamora, 4 ♂, 5 ♀.

*C. c. niveiceps.*—PERÚ: Poco Tambo ( = Pucatambo), 2 ♂[1] (incl. type); Moyobamba, 1 ♂[1]; Río Seco, west of Moyobamba, 4 ♂; Uchco, 1 ♂; La Merced, 2 ♂, 1 ♀; Perené, 1 ♂; Tulumayo, 3 ♂, 1 "♂" [= ♀ ?]; Lagarto, Río Ucayali, 1 ♀; Pachiza, 1 ♂, 1 ♀; Río Tavara, 1 ♂; Río Colorado, Chanchamayo, 1 ♂[1], 4 ♀[1]; San Ramón, 1 ♂[1], 1 ♀[1]. BOLIVIA: Río Huayna Choirisa, 1 ♂; Lower Beni, 1 [♂].

*C. c. fuscicapilla.*—ECUADOR: Río Suno, above Avila, 3 ♂, 3 ♀; below San José, 1 ♂, 1 ♀; mouth of Río Curaray, 2 ♂, 3 ♀; Archidona, 1 ♂; "Napo," 1 ♂. COLOMBIA: Villavicencio, 1 ♂, 1 ♀; Buena Vista, 2 ♂; Mambito, 1 ♂, 1 ♀; "Bogotá," 2 ♂, 4 ♀, 1 [?][1].

*C. c. poecilonota.*—DUTCH GUIANA: near Paramaribo, 1 ♂. BRITISH GUIANA: Conwarook, 2 ♀[1].

*C. c. leuconota.*—ECUADOR: Río de Oro, 2 ♂, 1 ♀; Esmeraldas, 2 ♂; Quevedo, 2 ♂; Pambilar, 1 ♂; Cachabí, 1 ♂. COLOMBIA: "Bogotá," 2 [♂], 1 [♀]; Gaupi, 1 ♂; Puerto Berrio, 1 ♀; Barbacoas, 1 ♂, 1 (?); San José, Cauca, 3 ♂; Los Cisneros, 2 ♀; Honda, 1 ♂; within twenty miles of Honda, 2 ♂, 1 (?); Noanamá, 1 ♂; Baudó, 1 ♀; Alto Bonito, 1 ♂, 1 ♀, 1 (?); Río Dagua, 1 ♂; Yuntas, 2 ♂, 1 ♀; Quibdó, 1 ♀[1]; Cerro Munchique, 1 ♂[1], 1 ♀[1]. PANAMÁ: 12 ♂, 9 ♀, 2 (?), 2 (?)[1]. COSTA RICA: 4 ♂, 1 (?), 2 ♂[1], 3 ♀[1]. NICARAGUA: 9 ♂, 1 (?).

### Knipolegus orenocensis sclateri Hellmayr

*Knipolegus sclateri* HELLMAYR, 1906 (July), Novit. Zool., XIII, p. 319—Rio Madeira [below the mouth of the Rio Mahissy (? = Rio Marcy)], Brazil; ♂; Vienna Mus.

I have eight males and a female from Santo Antonio de Guajará, left bank of the lower Rio Madeira, which are referable to this upper Amazonian form. Curiously, neither Pelzeln nor Hellmayr makes any mention of a broad, pinkish cinnamon inner margin on the remiges of the female which is a prominent characteristic of the specimen of that sex now before me. However, Dr. Hellmayr writes me that the female in the Vienna Museum, from the type locality, has these same markings which he had duly recorded in his manuscript notes but which he had omitted to mention in his published account. He also advises me that three females of *xinguensis*, of which I have only males, lack these well-defined edges. They are quite lacking in males of both forms.

There are faint traces of pale inner margins on the remiges of female

[1] Specimens in Field Museum of Natural History, Chicago.

*orenocensis*, but they are far from the strong borders shown by female *sclateri*. In general respects, the females of *sclateri* and *xinguensis* (as described) resemble each other more than they suggest *orenocensis*, while the males of *orenocensis* and *xinguensis* are closer to each other than to the same sex of *sclateri*.

A single record of a male of *sclateri* from Pebas (specimen in the British Museum) carries the distribution of this form into Perú, but additional records would be desirable.

SPECIMENS EXAMINED

*K. o. orenocensis*.—VENEZUELA: Capuchin, 1 ♂; Altagracia, 4 ♂, 4 ♀; Ciudad Bolívar, 2 ♂; Agua Salada de Ciudad Bolívar, 1 ♀.

*K. o. xinguensis*.—BRAZIL: Goyaz, Rio Araguaya, 2 ♂.

*K. o. sclateri*.—BRAZIL: Rio Madeira, Santo Antonio de Guajará, 8 ♂, 1 ♀.

### **Phaeotriccus poecilocercus** (Pelzeln)

*Empidochanes poecilocercus* PELZELN, 1868, 'Orn. Bras.,' II, p. 181—Rio Amajau [= Rio Anajahú, near the mouth of the Rio Branco ?], Brazil; Vienna Mus.; = ♀.

*Cnipolegus pusillus* SCLATER AND SALVIN, 1873, 'Nomen. Av. Neotrop.,' p. 158—Lower Amazon; British Mus.; = ♂.

A female from Sarayacu, lower Río Ucayali, furnishes the first record of this species from Perú.

There is much variation among the females from various localities as regards the brown or olive coloration of the upper parts and breast, the whiteness or yellowness of the belly, and the intensity of rufescence on the tail, but I can find no geographic significance in these factors. The Peruvian specimen is intermediate. The males show little variation of any kind. Young males are much like the adult females but are grayer in tone.

SPECIMENS EXAMINED

*P. poecilocercus*.—VENEZUELA: Río Orinoco, Perico, 1 ♂; mouth of Río Ocamo, 1 ♀. BRAZIL: Rio Negro, Yavanari, 1 ♂; Tabocal, 1 ♀; Muirapinima, 2 ♂; Igarapé Cacao Pereira, 1 ♂, 2 ♀; Faro, 12 ♂, 2 ♀, 1 (?); Monte Alegre, 1 ♂; Rio Tocantins, Arumatheua, 1 ♂; Alcobaça, 1 ♂; Rio Tapajoz, Caxiricatuba, 3 ♂, 2 ♀; Piquiatuba, 1 ♂; Inajatuba, 2 ♂; Tauarý, 2 ♀; Igarapé Amorín, 1 ♀; Itaituba, 1 ♀; Villa Bella Imperatríz, Lago Andirá, 2 ♂; Boca Rio Andirá, 1 ♀; Rio Madeira, Borba, 1 ♂; Rosarinho, 4 ♂, 2 ♀; Jamarysinho, Rio Machados, 1 ♂. PERÚ: Sarayacu, Río Ucayali, 1 ♀.

### **Fluvicola pica albiventer** (Spix)

*Muscicapa albiventer* SPIX, 'Av. Bras.,' II, p. 21, Pl. xxx, fig. 1; part, descr. of male—Brazil; Munich Mus.

I have no Peruvian specimens of this species which is included in the Peruvian list on the basis of a female from Pebas, now in the British Museum, and a specimen collected by Bartlett on the "Upper Ucayali" (near Cashiboya?), the present repository of which is unknown.

The references to these specimens have been subject to some confusion. Sclater and Salvin originally recorded the upper Ucayali specimen as *pica* and the Pebas specimen as "*albiventris*" but later included both under *pica*. Shortly afterward, Taczanowski cited both records under *pica*, apparently following Sclater and Salvin's latest treatment, accompanying the citation with a description of true *pica*, which was not necessarily drawn up from the Peruvian specimens. Still later, Sclater listed the Pebas specimen under "*albiventris*," together with the original record for it under this name, but under *pica* he included the references to the same specimen (as well as the Ucayali references) under that name although no Peruvian specimen of *pica* is listed. The various records obviously are quoted here under the names as variously applied in previous papers, without proper analysis.

Mr. J. D. Macdonald of the British Museum kindly writes me that the Pebas specimen is properly referable to *albiventer*, and I strongly suspect that the Ucayali specimen belonged to the same form. The range of *pica* is almost exclusively in the northern part of South America and reaches the Amazonian drainage only, so far as known, on the upper Rio Branco. On the other hand, *albiventer* occurs on the Rio Madeira and both banks of the lower Amazon, as well as in other parts of southern and eastern Brazil, Paraguay, and Argentina, and with the definite record of this form from Pebas, the Ucayali record may be assigned to *albiventer* without much hesitation. There still remains, however, a hiatus in the range between eastern Perú and the Rio Madeira, Brazil, where future field work should uncover the presence of this subspecies.

**Ramphotrigon ruficauda** (Spix)

*Platyrhynchus ruficauda* Spix, 1825, 'Av. Bras.,' II, p. 9, Pl. xi, fig. 1—"in sylvis fl. Amazonum"; Munich Mus.

There are said to be four specimens of this species, one male and three females, in the British Museum, collected at Chamicuros, Perú, by Hauxwell and Bartlett. These are the only Peruvian examples recorded. Our collectors failed to obtain the bird in Perú although we have an excellent series of ninety-one specimens from other parts of its range where it appears to be not very rare. The nearest approach to Peruvian territory in this series are Teffé, Brazil, on the south bank of the Amazon, and

Mt. Curycuryari, on the upper Rio Negro. On the Río Uaupés, the species enters Colombia opposite Tahuapunto, Brazil. On Mt. Curycuryari, the range extends upwards to some 2500 feet, and on Mt. Duida at least to 2000 feet.

**Ramphotrigon fuscicauda** Chapman

*Ramphotrigon fuscicauda* CHAPMAN, 1925 (September 28), Amer. Mus. Novitates, No. 187, p. 5—Lower Río Suno, Ecuador; ♀; Amer. Mus. Nat. Hist.

A second female specimen of this rare species, heretofore known only from the type, is at hand from Lagarto, upper Ucayali, extending the range of the species far to the southward, though with no indication of the line of communication between the two known localities if, indeed, such communication exists.

The Peruvian skin is very like the type though with a slightly warmer hue on the wing-bars. Except for the yellow, instead of rufescent, crissum and a somewhat deeper tone of yellow on the belly, the under parts of the body are strikingly similar to *R. ruficauda*. The upper parts likewise are very similar, although the general hue is a somewhat more brownish olive, with the top of the head rather distinctly darker and with the uropygium like the mantle instead of rufescent. The outer rectrices are pronouncedly shorter than the others (8 mm. shorter than the median ones in the Lagarto skin; 5 mm. in the type) whereas, in *ruficauda*, the difference is slight and in some cases with the outer feathers the longest. The tips of the rectrices have rather definitely defined pale tips as well as olivaceous outer margins. Wing and tail are slightly longer in the Lagarto specimen than in the type, being 70.5 and 67 mm., respectively; in the type the wing is 68 mm. and the tail 65. The pale eye-ring and pale upper margin of the lores are as in *ruficauda*. The generally dark appearance of the wings and tail and the olive-green upper tail-coverts and yellow crissum as compared with the strong cinnamomeous color of the same regions in *ruficauda* are instantly diagnostic. Nevertheless, when more is known about the Peruvian distribution of the two forms some relationship closer than generic may become apparent. At present the two must be treated as species.